

CLAIMS

- 1 1. A method comprising
2 opening simultaneous communication sessions between
3 electronic devices and a server, the communication sessions being
4 carried on communication links each of which is at least partially
5 wireless,
6 sending from the devices to the server information
7 associated with proposed debit or credit transactions,
8 completing the transactions using an application running on
9 the server,
10 maintaining the communications sessions in existence
11 during inactive periods when information about another debit or
12 credit transaction is not waiting to be sent from one or more of the
13 devices to the server, and
14 after the inactive periods, using the maintained
15 communication sessions to send, from the devices to the server,
16 information associated with other proposed debit or credit
17 transactions.
- 1 2. The method of claim 1 in which the electronic devices
2 comprise off-the-shelf stand-alone hand-held devices.
- 1 3. The method of claim 1 in which at least one of the
2 communication links uses a TCP/IP protocol.

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1 4. The method of claim 1 in which the information about the
2 debit or credit transactions is entered interactively through user
3 interfaces of the devices.

1 5. The method of claim 1 in which the information about the
2 transactions is discarded at each of the devices when the
3 transactions have been completed.

1 6. Apparatus comprising
2 electronic devices configured to be capable of initiating and
3 maintaining communication sessions with a server, the
4 communication sessions being carried on communication paths
5 that are at least partially wireless,

6 a server configured to receive information sent from the
7 devices, using the communication sessions, about debit and credit
8 transactions, and to maintain the sessions at times when no
9 information about debit and credit transactions is being sent from
10 the devices to the server.

1 7. A method comprising
2 opening a communication session between an electronic
3 device and a server, the communication session being carried on a
4 communication link that is at least partially wireless,

5 sending from the device to the server, using the
6 communication session, information associated with a proposed
7 debit or credit transaction,

8 completing the transaction using an application running on
9 the server,

10 after the transaction has been completed, maintaining the
11 communication session during an inactive period when
12 information about another debit or credit transaction is not waiting
13 to be sent from the device to the server,

14 after the inactive period, sending from the device to the
15 server, using the communication session, information associated
16 with another proposed debit or credit transaction, and

17 effecting the transaction using an application running at the
18 server.

1 8. The method of claim 7 in which the electronic device
2 comprises an off-the-shelf stand-alone hand-held device.

1 9. The method of claim 7 in which the communication link
2 uses a TCP/IP protocol.

1 10. The method of claim 7 in which the information about the
2 debit or credit transactions is entered interactively through a user
3 interface of the device.

1 11. The method of claim 7 in which the information about the
2 transaction is discarded at the devices when the transactions have
3 been completed.

1 12. A method comprising

2 exchanging information with a user at an electronic device,
3 the information being about a proposed credit or debit transaction,

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4 the information being exchanged through a user interface that
5 includes an information display and an information input device,
6 communicating information that is input by a user from the
7 electronic device to a server through a communication link that is
8 at least partially wireless,

9 the display of information to the user on the information
10 display and the receipt of information from the user through the
11 information input device being controlled through the
12 communication link by an application running on the server, and

13 at the server, using the information input by the user and
14 communicated to the server to effect the transaction.

1 13. The method of claim 12 in which the electronic device
2 comprises an off-the-shelf stand-alone hand-held device.

1 14. The method of claim 12 in which the communication link
2 uses a TCP/IP protocol.

1 15. The method of claim 12 in which the information about the
2 debit or credit transactions is entered interactively through a user
3 interface of the device.

1 16. The method of claim 12 in which the information about the
2 transaction is discarded at the devices when the transactions have
3 been completed.

1 17. A method comprising

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2 exchanging information with a user electronic device, the
3 information being about a proposed credit or debit transaction, the
4 information being exchanged through a user interface that includes
5 an information display and an information input device, the
6 electronic device comprising a publicly-distributed, stand-alone
7 interactive hand-held device running a publicly available operating
8 system,

9 communicating information that is input by a user from the
10 electronic device to a server through a communication link that is
11 at least partially wireless, and

12 at the server, using the information input by the user and
13 communicated to the server to effect the transaction.

1 18. The method of claim 17 in which the communication link
2 uses a TCP/IP protocol.

1 19. The method of claim 17 in which the information about the
2 debit or credit transactions is entered interactively through a user
3 interface of the device.

1 20. The method of claim 17 in which the information about the
2 transaction is discarded at the devices when the transactions have
3 been completed.

1 21. A method comprising

2 exchanging information at an electronic device, the
3 information being about proposed credit or debit transactions of
4 customers, the information including confidential identification
5 information about accounts of the customers,

6 communicating information about the transactions,
7 including the confidential identification information, from the
8 device to a server over a communication link that is at least
9 partially wireless,

10 effecting the transactions from the server, and

11 discarding the confidential identification information at the
12 device after the transactions have been effected so that the
13 confidential identification information is not retained on the
14 electronic device when it is powered down.

1 22. The method of claim 21 in which the electronic device
2 comprises an off-the-shelf stand-alone hand-held device.

1 23. The method of claim 21 in which the communication link
2 uses a TCP/IP protocol.

1 24. The method of claim 21 in which the information about the
2 debit or credit transactions is entered interactively through a user
3 interface of the device.

1 25. A method comprising

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2 exchanging information at hand-held devices, the
3 information being about proposed credit or debit transactions,

4 at a server, receiving information about the transactions
5 from the devices through communication links that are at least in
6 part wireless,

7 running an application on the server, the application being
8 configured to effect credit and debit transactions using the received
9 information received from the hand-held devices,

10 effecting credit and debit transactions using the application
11 and the received information,

12 updating the application on the server without updating any
13 application related to the processing of credit and debit
14 transactions on the devices, and

15 after the updating, continuing to effect credit and debit
16 transactions using the updated application.

1 26. The method of claim 25 in which the electronic devices
2 comprise off-the-shelf stand-alone hand-held devices.

1 27. The method of claim 25 in which the communication links
2 use a TCP/IP protocol.

1 28. The method of claim 25 in which the information about the
2 debit or credit transactions is entered interactively through a user
3 interface of the device.

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1 29. The method of claim 25 in which the information about the
2 transaction is discarded at the devices when the transactions have
3 been completed.

1 30. A method comprising

2 exchanging information at hand-held devices, the
3 information being about proposed credit or debit transactions,

4 at a server, receiving information about the transactions
5 from the devices through communication links that are at least in
6 part wireless,

7 running an application on the server, the application being
8 configured to effect credit and debit transactions using the received
9 information received from hand-held,

10 effecting credit and debit transactions using the application
11 and the received information,

12 running other applications at the server, the other
13 applications not being ones that effect credit or debit transactions,
14 and

15 controlling user interfaces at the hand-held devices from
16 the server to provide functions of the other applications to users of
17 the hand-held devices at times when information about credit or
18 debit transactions is not being exchanged.

1 31. Apparatus comprising

2 an interactive handheld device,

3 a reader for reading debit or credit cards to be used in debit
4 or credit transactions entered on the hand-held device, and

5 a printer adapted to print receipts for debit or credit
6 transactions,

7 the device, the reader, and the printer having short-range
8 wireless communication capability to carry information about the
9 credit or debit transactions between the device and the reader and
10 between the device and the printer.

1 32. A method comprising

2 running a client application on a mobile electronic device
3 and a server application on a central server, the server application
4 controlling the client application to provide financial transaction
5 authorization services with respect to transactions occurring at the
6 mobile electronic device, and

7 providing additional non-financial transaction services by
8 additional client applications at the mobile electronic device, the
9 additional client applications being under the control of additional
10 server applications running on the server.

1 33. A method comprising

2 entering information about credit or debit transactions at
3 hand-held devices using interfaces that are under control of an

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4 application running at a remote server, the devices acting as
5 terminals to the server,

6 communicating the information using continually
7 maintained communication sessions carried on communication
8 links that re at least partly wireless,

9 effecting the transactions using applications running at the
10 server, and

11 discarding information about credit or debit accounts at
12 each device when the communication session is ended.

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